Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An anti-reflection film material used in lithography which is an anti-reflection film material used in lithography and contains at least a polymer compound having repeating units for copolymerization represented by the following general formula (1):

wherein R¹ is a monovalent organic group having a crosslink group, R² is a monovalent organic group having a light-absorption group, and R³ is a monovalent organic group-which has at least one functional group selected from the group consisting of carbonyl, ester, lactone, amide, ether, and nitrile selected from the group

consisting of:

; a1, b1 and c1 are 0 < a1 < 1, 0 < b1 < 1, 0 < c1 < 1, and $0.5 \le a1 + b1 + c1 \le 1$; each of R^4 , R^5 and R^6 is a hydrogen atom, a hydroxy group, an alkyl group having 1-6 carbon atoms, an aryl group having 6-10 carbon atoms, or a fluorinated alkyl group having 1-6 carbon atoms; and each of m, n and p is 0 or 1.

2. (Currently Amended) An anti-reflection film material used in lithography which is an anti-reflection film material used in lithography and contains at least a polymer compound having repeating units for copolymerization represented by the following general formula (2) and a polymer compound having repeating units for copolymerization represented by the following general formula (3):

$$\begin{array}{c|c}
R^1 & R^2 \\
- SiO_{(3-m)/2} & - SiO_{(3-n)/2} \\
R^4_m & R^5_n
\end{array}$$
(2)

$$\begin{array}{c|c}
R^{1} & R^{3} \\
- SiO_{(3-m)/2} & - SiO_{(3-p)/2} \\
R^{4}_{m} & R^{6}_{p} & c2
\end{array}$$
(3)

wherein R¹ is a monovalent organic group having a crosslink group, R² is a monovalent organic group having a light-absorption group, and R³ is a monovalent organic group which has at least one functional group selected from the group consisting of carbonyl, ester, lactone, amide, ether, and nitrile selected from the group consisting of:

; each of R^4 , R^5 , and R^6 is a hydrogen atom, a hydroxy group, an alkyl group having 1-6 carbon atoms, an aryl group having 6-10 carbon atoms, or a fluorinated alkyl group having 1-6 carbon atoms; each of m, n and p is 0 or 1; a2 and b2 are 0 < a2 < 1, 0 < b2 < 1, and $0.5 \le a2 + b2 \le 1$; and a3 and c2 are 0 < a3 < 1, 0 < c2 < 1, and $0.5 \le a3 + c2 \le 1$.

- 3. (Original) The anti-reflection film material according to Claim 1 which further contains an organic solvent and/or an acid generating agent.
- 4. (Original) The anti-reflection film material according to Claim 2 which further contains an organic solvent and/or an acid generating agent.
- 5. (Original) The anti-reflection film material according to Claim 1 which further contains a crosslinking agent.
- 6. (Original) The anti-reflection film material according to Claim 2 which further contains a crosslinking agent.

- 7. (Original) The anti-reflection film material according to Claim 1 wherein the light-absorption group in the repeating unit of the polymer compound contained in the anti-reflection film material is an aromatic group or a group having a Si-Si bond.
- 8. (Original) The anti-reflection film material according to Claim 2 wherein the light-absorption group in the repeating unit of the polymer compound contained in the anti-reflection film material is an aromatic group or a group having a Si-Si bond.
- 9. (Original) A substrate which has at least an anti-reflection film obtained by baking the anti-reflection film material according to Claim 1 on the substrate.
- 10. (Original) A substrate which has at least an anti-reflection film obtained by baking the anti-reflection film material according to Claim 2 on the substrate.
- 11. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 1 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, and etching the anti-reflection film and the substrate with using as a mask the photoresist film on which the resist pattern is formed to form a pattern on the substrate.
- 12. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 2 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the

photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, and etching the anti-reflection film and the substrate with using as a mask the photoresist film on which the resist pattern is formed to form a pattern on the substrate.

- Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 1 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film with using as a mask the photoresist film on which the resist pattern is formed, and etching the substrate with using as a mask the anti-reflection film on which the pattern is formed, to form a pattern on the substrate.
- 14. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 2 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film with using as a mask the photoresist film on which the resist pattern is formed, and etching the substrate with using as a

mask the anti-reflection film on which the pattern is formed, to form a pattern on the substrate.

- 15. (Original) A method for forming a pattern on a substrate by lithography comprising at least, forming an organic film on the substrate, applying to the organic film the anti-reflection film material of Claim 1 and baking the anti-reflection film material to form an anti-reflection film, applying a photoresist film material to the anti-reflection film and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film using as a mask the photoresist film on which the resist pattern is formed, etching the organic film using as a mask the anti-reflection film on which the pattern is formed, and etching the substrate to form a pattern on the substrate.
- 16. (Original) A method for forming a pattern on a substrate by lithography comprising at least, forming an organic film on the substrate, applying to the organic film the anti-reflection film material of Claim 2 and baking the anti-reflection film material to form an anti-reflection film, applying a photoresist film material to the anti-reflection film and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film using as a mask the photoresist film on which the resist pattern is formed, etching the organic film using as a mask the anti-reflection film on which the pattern is formed, and etching the substrate to form a pattern on the substrate.